UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,130	03/22/2001	Kuo-Jeng Wang	JCLA6533	4302

			EXAMINER
7590	11/29/2004	ı	HUYNH, KIM NGOC

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ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/815,130	WANG, KUO-JENG
	Examiner	Art Unit	
	Kim Huynh	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 10-13* is/are rejected.

7)☒ Claim(s) *3-9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-2 and 10-13 are rejected under 35 U.S.C. 103(a) as being obvious over

DeWilde et al. (US 6,434,674).

Claim 1, DeWilde discloses a transmission configuration for processing batches

of data comprising a synchronous dynamic memory (SDRAM 10) for holding data,

wherein the synchronous dynamic memory also has a masking function for processing

a portion of the data (col. 4, II. 33-38 and col. 5, II. 58-61, masking lines 14-16); and a

first buffer unit 26 coupled to the synchronous dynamic memory serving as a temporary

storage area of data sent from the synchronous dynamic memory.

As for the recitation of using the transmission configuration in a scanner, please

note it is an intended use. It would have been obvious to one having ordinary skill in the

art to utilize the device of DeWilde to transmit data in various applications/devices

(including scanners) in order to provide cost effective method with numerous

advantages including increase efficiency of memory use and obtainable memory

throughput for high speed and direct data flow (col. 2, II. 1-3 and col. 4, II. 4-38).

Please note an intended use of the claimed invention must result in a structural

difference between the claimed invention and the prior art in order to patentably

distinguish the claimed invention from the prior art. If the prior art structure is capable of

performing the intended use, then it meets the claim. In a claim drawn to a process of

making, the intended use must result in a manipulative difference as compared to the

prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458,

459 (CCPA 1963).

Claim 2, DeWilde discloses the masking function is capable of blanking

unwanted data when the useful data is less than the quantity of data is less than the

quantity of data a burst mode can transmit (col. 2, ll. 4-3, col. 5, ll. 1-5 and col. 7, ll. 17-

35).

Claim 10, DeWilde discloses a method (col. 7, ll. 5-39) for transmit data to a

SDRAM 10 having steps of : a) determining if the quantity of data (PCI burst data)

written into the SDRAM 10 is greater than or equal to the transmission quantity of a

burst mode transmission (full burst) (if PCI words equal to 8 words, col. 7, ll. 10-15), (b)

executing a write command so that the data is written into the SDRAM if the quantity of

data is greater than or equal to the transmission quantity (modify the content of the

SDRAM with words having mask bit set at 0); (c) determining if the data is the last

remaining data if the quantity of data is smaller than the transmission quantity (if the PCI

burst ends before the last of the two wide words, col. 7, ll. 32-35); (d) executing a write

command so that the last remaining data is written into the SDRAM if the data is the last

remaining data (col. 7, ll. 35-37); and (e) returning to step (a) if the data is not the last

remaining data until all the data is written into the SDRAM (if the transferred word is not the second of the wide word, return to step 102). As for the recitation of scanner, please see the discussion of claim 1.

Claim 11, DeWilde discloses comparing the PCI bus words against the burst mode (col. 7, II. 1-15) and checking to see if the end of the PCI data ends before the last word of the burst mode (col. 7, II. 28-30). End of packet flag is required for data transmission protocol and would be included in the PCI data of DeWilde. Since DeWilde disclose comparing the PCI data and the end of the PCI data against the burst mode. It would have been obvious to one having ordinary skill in the art to realized that the end of packet tag is used in order to determine the end of the PCI data packet.

Claim 12, DeWilde discloses a method for reading out data from a SDRAM 10 (see col. 8, II. 1- 23) comprising the steps of: (a) determining if the quantity of data in the SDRAM is greater than or equal to the transmission quantity of a burst mode transmission (col. 7, II. 46-53), (b) executing a read command so that the data is read from the SDRAM and written into a buffer unit if the quantity of scan data is greater than or equal to the transmission quantity; (c) determining if the data is the last remaining scan data if the quantity of data is smaller than the transmission quantity (d) executing a read command so that the last remaining data is written into the buffer unit 26 if the data is the last remaining data; and (e) determining if the quantity of data stored in the SDRAM 10 is greater than or equal to the transmission quantity of a burst mode transmission if the data is not the last remaining data, continuing until all the data are

read from the SDRAM and written into the buffer unit (col. 8, ll. 1-14). As for the recitation of scanner, please see the discussion of claim 1.

Claim 13, DeWilde discloses the blanking function is used to blank out redundant data when the quantity of data is less than the transmission quantity of the burst mode transmission (masking/blanking during read operation, col. 7, ll. 39-44).

Allowable Subject Matter

3. Claims 3-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter

Claim 3 recites, inter alia, the transmission configuration for processing batch data using SDRAM with a masking function and includes the buffers, buffer controller, and the counter and comparator for counting/comparing the preset data transmission quantities as claimed.

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

DeWidle et al. (US 6,434,674) is a continuation of DeWilde et al. (US 6,571,302)

which provides a better illustration of the READ and WRITE operation of the SDRAM is

provided for applicant's consideration.

Good et al. (US 6,240,095) illustrated in Fig. 4 a flag 58 to signifies the end of

data packet. Andrewartha et al. (US 5,974,514) and Hughes (US 5,784,582) disclose

various devices for burst transmission.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kim Huynh whose telephone number is (571) 272-

4147.

The fax phone number for the organization where this application or proceeding

is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Kim Huynh
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Art Unit 2182

KH
11/20/04